C.D. Howe Institute

Commentary

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EDUCATION POLICY IN CANADA: THE URGENT ISSUES

Summary: As the pressure on Canadians to adapt quickly to a changing world intensifies, Canada's education system must be able to respond to the challenge. The debates now heating up about this country's education policies and system give rise to several key issues, addressed in this **Commentary**, that should be at the top of the agenda for decision. Should public funds be channeled more intensively into higher education or more extensively to ensure universal literacy and numeracy? What is the appropriate balance between public and private funding? What incentives should be created to raise the quality of education for all Canadians? And what are the most effective roles for the federal and provincial governments to play?

Canada's education goals, policies, and institutions are receiving widespread, often urgent, scrutiny. In one or another of its various guises, education is regarded as key to Canada's economic future. Training and retraining programs are vital to the adjustments that must be made to rapidly changing international economic conditions. Yet education expenditures are not exempt from budgetary restraints imposed by governments faced with the necessity of trimming deficits. Because education affects such a wide range of interests -- those of educators, federal and provincial governments, and public- and private-sector decisionmakers -- it is bound to continue to be the subject of major policy debates over the next few years.

The structure and scope of the debates about Canada's education goals and policies will be extremely important. The purpose of this **Commentary** is to examine four issues that should head the agenda. Until choices have been made about goals and the funding priorities to achieve those goals, there is little value in debating details of existing or proposed financial arrangements among governments.

The first issue concerns the desirable balance to be struck between public funds allocated to university and secondary education. A case can be made, for example, for shifting the current emphasis on funding university education to secondary education. The second issue is the balance between public and private funding for university education. The third issue is the policy emphasis that should be placed on strengthening the quality of education in Canada. Some might argue that improving quality ought to be given a higher priority than either of the allocational issues. The fourth issue, which arises because education is funded by federal-provincial agreement, is the implications of preferences with respect to quality, burden, and allocation for the Established Program Financing (EPF) negotiations scheduled for 1987.

Such wide-ranging issues cannot be discussed without at least implicit criteria that reflect desired characteristics of educational activity. These characteristics include accessibility to, and excellence in, the education system and the ability of the system to contribute to the major societal goals of economic efficiency and social justice.

Since education in general is not just a means to an end but part of the good life in an advanced society, access to education is, in itself, a worthy objective of public policy. It is difficult to imagine that a nation could be considered to be overeducated, although certain individuals can be overeducated for particular jobs. Education, by providing opportunity, can foster social justice and, by providing new skills and nurturing technological change, can support economic development and more efficient use

of human and physical resources.

The Balance between University and Secondary Education

The question of the balance to be struck between funding university and secondary education arises because there are competing goals for education policy and, inevitably, two competing uses for educational and financial resources. A widely accepted goal is to provide more people with the advantage of a university education. Yet there is another, more controversial goal: to ensure that all Canadians who are 45 or under by a certain target year complete Grade 12 schooling or its equivalent.

Expanding access to university education might have been a valid goal in the 1950s and 1960s, but there are very few reasons to believe this is still the case. Economists refer to the "social rate of return", a crude measure of the economic benefits to society derived from any kind of investment, expressed by the value of the extra output that such investment "earns", not only for its owner, but for society as a whole. This measure, as it applies to attaining a university-level education, now suggests that the returns to this level are no longer demonstrably higher than for other kinds of investment. Indeed, they may be lower. Returns to higher education are roughly measured by the extra income accruing to university-trained people over and above the average returns earned by those without such education -- before tax so as to capture the benefits society as a whole also derives from that extra income. According to the 1981 Census, about half the population in the 25-to-44 age group has obtained qualifications beyond the secondary level. With such a high participation rate, it is not surprising that there are small returns to further expansion of enrollment. This is to be expected because there must be some optimum "mix" of skill levels in the labor force; when that mix is reached, the benefits in terms of an increment in the proportion of highly trained people would be expected to decline.

A more valid goal, however, may be to increase the level of literacy in the general population. We are beginning to learn that our modern, highly developed societies have not eradicated illiteracy. More important, many people lack **functional literacy**, the ability to read and comprehend moderately difficult texts -- such as instructions, safety warnings, and technical manuals -- of the kind one needs to understand in order to function in our technological society as a consumer or low-skill worker, and **numeracy**, the ability to do simple arithmetic. The discussion generated by these findings has advanced the notion of an educational threshold that could determine literacy retention after one has left school. This would suggest the need to increase the overall level of education at least to that threshold to prevent premature depreciation or decay of the investment involved.

Unemployment rates for people with different levels of education tell a more direct story. Census data for 1981 show that for those without high school diplomas or equivalent trade certificates, unemployment rates were 72 percent higher than for other groups with those qualifications or better. Needless to say, the less-qualified represented more than their proportionate numbers among the unemployed.

Studies in a number of countries show that increased levels of schooling at the primary and secondary levels can make income distribution more equal. In the United Kingdom, for instance, a study of the impact of a decision in 1972 to increase the minimum school-leaving age by one year has shown that, other things being equal, it was likely to reduce income inequality by 12 to 15 percent.

There appear, then, to be strong and converging indications, on both efficiency and equity criteria, that a determined effort to raise the level of schooling at the secondary level would pay much higher dividends than a similar effort directed at the university level. This may sound like an effort to storm through open doors. Are we not already providing secondary education to just about every child? The short answer is no, and the implications disturbing. To understand them better, it is possible to estimate the cost of a systematic effort to ensure that, by 1995, all Canadians aged 45 or under achieve educational training to the level of Grade 12.

During the 1976-81 period, as many as

37 percent of all 18-year-old Canadians had not yet graduated from high school. Although it is reasonable to assume many would graduate eventually, this still leaves a considerable proportion that would never do so. For those presently at school and who, according to existing patterns, would drop out before completing Grade 12, such a policy would imply adding 4.9 million person-years -- an average of 3.3 years for 1.48 million pupils -- to school enrollment in Canada. For those having already left school and who would need to return to catch up, an additional 7.6 million person-years would be required. Using Statistics Canada estimates of average annual costs per pupil, it is estimated that the total of 12.5 million person-years of schooling involved would cost almost $38 billion.

This enormous figure, admittedly the result of rough calculations, gives an indication of the immense gap between Canada's real achievement in the field of education and what most of us tend to assume: that just about everyone has completed 12 years of formal schooling. This assumption certainly is documented in the usual requirements even for some of the most menial jobs. But such an estimate also indicates that the task probably cannot be done unless it is phased in over 10 years, unless we forget those who are already 35 or over, and unless we find ways to ensure that each year between the drop-out year and the end of Grade 12 is made up by less than one catch-up year.

Assuming an accelerated catch-up program for those who have already left school and are 35 or under, and assuming six months of catch-up is a substitute for one year of deficit -- an assumption that appears justified by current experience in this regard -- the total cost over 10 years could be reduced to $15 billion, or $1.5 billion annually. This is approximately the same amount as the current university transfers from Ottawa to the provinces.

These estimates are based on the notion that, for an advanced industrial economy, Grade 12 should be considered a minimum educational threshold today and for the foreseeable future. This judgment may appear too ambitious and could certainly spur debate among education specialists, but labor-market statistics tend to provide some support for it.

The $1.5 billion annually that such a program would require does not necessarily represent entirely fresh funding. Apart from what could be diverted from university education, existing so-called "labor-training programs" probably contain substantial amounts devoted to remedy basic educational deficiencies.

The Balance between Public and Private Funding of Higher Education

There are abundant indications in many countries that people from family backgrounds with above-median incomes make disproportionate use of subsidized university-level educational services. In other words, there is no reason to believe that higher education is a social equalizer -- quite the contrary. In an era pretending to be increasingly concerned about the choice between universal and selective access to social programs, this is a finding that should not go unheeded.

In the western democracies, much of the initial support for free public education was inspired by the widespread desire to reduce, through equal access to skills acquisition and education, the differences among social classes and, indeed, to offset the unequalizing influence of inherited wealth. Even today, universal free education at the primary and high school levels does seem to have that potential in the less-developed countries. But free access to university education is more likely to act as a reinforcer of other sources of social inequality than the converse.

Government support of university education has been mainly directed at keeping tuition fees low. Those fees are now, in real terms, much lower than they were in the past and represent a diminishing share of the total revenues of universities.

A cynic might conclude that the well-to-do have used higher education as one device to get back some of the excess taxes they consider they pay to government, or that government now positively encourages social inequality as long as it is legitimized by the

meritocratic values typical of bureaucratic societies. Could it be just an oversight? Assuming the latter explanation is to be preferred, there are better ways to spend public funds.

There seems to be evidence that the returns to higher education can be highest when education is correlated with ability. As George Psacharopoulos, one of the leading international students of the subject, has observed,

> any educational system wherein the selection of students and the amount of their schooling are determined by factors other than ability suffers a misallocation of educational resources.[1]

In spite of low tuition fees, there is evidence that access to higher education is presently related primarily not to ability but to income. The income loss due to studying rather than working, plus the difficulty and risks involved in borrowing for the purpose, ensures that this is so. If, as the census data seem to suggest, the proportion of about 50 percent representing present access to university education is about right, there would appear to be a need to make sure that ability ranks very high among the criteria for selecting that 50 percent out of a total age group.

A more generous system of student grants could make this possible. One way to finance such a system would be to reallocate the federal government's entire cash contribution to the provinces for university education. Estimates, using 1980-81 data, of the implications of such a program are that, if grants of $10,000 were awarded, over 150,000 students -- the upper third in academic standing -- could benefit in this way. The provinces, however, would have to make up for the lost revenues, possibly through higher tuition charges. By our estimates, fees would have to rise an average of $3,309 per year to a level of $4,200.

Improving the Quality of Education in Canada

These suggested changes in Canada's education system -- shifting from public to private funding and to a scholarship system intended to improve the correlation between ability and university admission -- could do a lot to enhance demand for higher-quality education. Anyone who has taught in a university knows the contribution that first-class students make to overall performance by the instructor as well as by other students. But action to foster excellence in our universities cannot be content with the demand side; there is also a supply side.

One measure to enhance quality on the supply side could be implemented at a rather small additional cost. In the 1960s, because of the intense expansion of university education during that period, new faculty members were rapidly hired for Canadian universities. In the early 1980s, however, university enrollments have decelerated, budgetary restraints exist, and tenure is widely available. The result has been a gradual rise in the average age of faculty members and a dearth of openings for younger faculty members. This imbalance reflects back on the graduate programs for which enrollments stagnate. An important component of the demand for holders of postgraduate degrees has been the universities themselves. With new openings becoming scarce, there is little incentive to engage in postgraduate work, thereby tightening the screw even more. Postgraduate programs benefit not only candidates for masters and doctoral degrees but the whole institution and are an essential ingredient in any university's "search for excellence."

One way to correct this imbalance would be to design a program ensuring that, over a five-year period, the proportion of university faculty members aged 35 or under rises to 25 percent. Assume that a faculty would be evenly balanced in its age composition if 25 percent of its members were found in each of four age brackets: under 35, 35 to 44, 45 to 54, and 55 or over. To allow for natural attrition, a "stationary-state" age distribution would have to be skewed in the direction of the younger age brackets, so that 25 percent probably represents a minimum under these assumptions.

In 1980-81, 16.1 percent of university faculty members were aged 35 or under. Assuming the age distribution of faculty members to be the same now, over 4,000 people

in this age group would have to be hired over the next five years to maintain that percentage, while another 5,182 appointments would be needed to raise the percentage to 25 percent. The total number of new appointments, on an annual basis, should reach at least 1,841. At an estimated cost of $40,000 per appointment -- including a reasonable amount of indirect costs to universities -- the annual incremental cost of such a policy over 5 years would represent less than $75 million. It would be less if spread out over 10 years. The impact on the demand for PhDs, however, would be massive since the annual number of new positions would exceed or just match the total number of doctorates awarded currently by Canadian universities, whereas only about 60 percent of these graduates would be available for teaching positions. Such a goal would imply, therefore, over time, a 50 percent increase in the output of doctoral programs.

The new positions thus created could be for specified periods rather than permanent. Conceivably, they could be designed to induce a gradual phase-out of an equivalent number of tenured professors from their university appointments. Some job-sharing arrangements developed in California -- such as that of the Assistant Dean of Student Affairs at Stanford University -- appear to have been successful in this regard. It is difficult to say which would be most beneficial to such a program: the infusion of new blood or the disappearance of deadwood! The authors of a recent study observe:

> In education, in particular, two teachers can share an appointment in a satisfactory manner and while providing the needed continuity. The teaching team of two people is then jointly responsible for implementing the school program. This can work as long as it is accompanied by provisions for early retirement, a solution to the problems created by an aging teaching staff....In a period of zero growth, this allows the staff to be gradually replaced.[2]

The present policy of across- the- board, low (but by no means negligible) financial barriers to entry into university education could -- and in my view should -- be replaced by one that stresses the allocation of resources which enhance the quality and hence the effectivenessof higher education in Canada. Research into the economics of education suggests that this is a more promising course than the present approach. However, programs for more ability-correlated admissions to university and for faculty rejuvenation are not the only possible elements of such a policy.

Education is an almost perfect example of the "capture" hypothesis for regulated industries. Education ministries (and school boards) are run by educators, and their regulatory roles have been converted to serve the ends of the regulated. As one consequence of that situation, objective evaluations of the quality of education provided by our schools that could inform policy debates do not exist. The debate in the United States launched by the report, **A Nation at Risk**, prepared by the National Commission on Excellence in Education, has focused much attention on the meaning of trends in various test scores; the scene is more serene in Canada because we run no risk of having our pet notions attacked by an appeal to "facts".

Isolated pieces of research sometimes provide an interesting glimpse into this aspect of Canada's education system. In a study undertaken in a number of Quebec City CEGEPs, or community colleges, entering students were tested for their ability to make use of basic logical structures. The results were devastating. In a recently published paper, an attempt was made to answer the following two questions: To what extent were students admitted to CEGEPs able to operate at the level of formal logic, and to what extent is the ability to operate at that level associated with success in general and in scientific subjects in particular? The evaluation was carried out on 6,000 students in ten colleges, following a methodology already used in similar studies in the United States and the United Kingdom.[3]

The percentage of students who performed satisfactorily in the formal logic test was low: 41.9 percent of natural sciences students, 29.3 percent of those in the health disciplines, and 12.0 percent of all others.

Equally disturbing was the indication that, although formal logic is positively correlated with success at the college level, even students who did very poorly on those tests managed to do well in almost half the courses offered. As the author says, "[success in college] generates the illusion in the minds of everyone...that [the student] has reached a certain level of intellectual development although he or she may not even have started along that route," and she adds, "strangely enough, in the less demanding courses, the ability to think straight does not appear to be in the least useful."[4] When compared with those obtained from similar studies in other countries, these findings seem even more alarming.

A lot more systematic research and evaluation should be carried out of the effectiveness and quality of education in Canada. The provinces have not done so possibly because they would rather not find out. If admissions offices in Canada's institutions of higher education were to apply more rigorous criteria of excellence, information of this kind would be essential. The quality of university education is very dependent on the quality of secondary education. As well, some measure of consumer protection needs to be applied to the education "industry".

Whichever option is chosen, much can be said in favor of the creation of a national institute for quality in education. Such an institute would not define standards or set down rules, curricula, or teaching methods but would, on a voluntary basis, provide systematic and comparable evaluations of performance.

Federal-Provincial Education Transfers and the Coming Review of EPF Arrangements

Before 1987, when the EPF comes up for review, federal-provincial education transfers will have to be assessed. Education will remain an important policy area and, judging from some recent pronouncements, a vital element of federal-provincial relations. Education priorities should not continue to reflect those established in the 1960s or 1970s. The new and different evaluation of Canada's problems and challenges in the 1980s must be used to guide governments' review of legislative and financial arrangements for our education system.

Canada's labor force is one of its most valuable resources. Investment in human capital represents a very large share of national investment, even though national accounting conventions do not consider it as such. Low-quality education and an inefficiently designed education system are national problems because the health and growth of the economy is a national problem. There is a more precise sense in which education is a national concern: the choices to be made among the various options described here should probably not vary significantly from province to province. The disparities that would result might be more than we can live with. There is, therefore, a need not only for innovation but for great skill in the harmonization of provincial education policies.

Harmonization of provincial policies is something to which the federal government has paid insufficient attention. However, the need for Ottawa to play such a role clearly exists. For instance, none of the major policy shifts discussed above realistically can be implemented by only one province. The politics of such a go-it-alone approach are formidable indeed, even if the provinces had a completely free hand. But Ottawa is part of the existing policy. It shares, in some sense, the cost of university education but not of secondary education. There are some constraints against shifting to private funding-cum-scholarships by a province if only because that would affect federal-provincial "shares" and would create disparities between provinces.

Policy harmonization means the federal and provincial governments moving together to achieve some common objectives. In the past -- for instance, when large-scale expenditure programs were initiated in the 1950s and 1960s -- the federal government had remarkable success in coordinating policy changes at the provincial level. Problems and bickering -- and the groping for "visibility" -- only started when the programs had stabilized and, indeed, when there was no longer any real role for the federal government to play. The lesson should have been learned by now: federal-provincial programs must from the very start be

conceived as of a transitional nature. Thus conceived, cost-sharing initiatives have a great role to play in facilitating public-sector adjustment to the realities of tomorrow.

A review of federal education policies, including those on financial support, should provide an occasion to correct possible sources of resource misallocation in that field. But policymakers should also be wary of three temptations that appear in the siren songs of Canada's education planners.

The first temptation is to assume that resource misallocations cannot be corrected. They can. Interprovincial migrations of university graduates do not cancel out and may constitute one of the few practical examples of interprovincial spillover, a concept which until now we have tended to regard as little more than an intellectual toy. Census figures reveal that, between 1976 and 1981, some provinces incurred huge net losses, and others net gains, of people having attained various levels of education. In effect, there has been a "brain drain" from the have-not provinces to the richer provinces. Such transfers of human capital, built up at considerable public expense, could lead the poorer provinces to spend less on higher education than is optimal and vice versa for the richer ones. Why should these capital gains and losses not be compensated through the mechanism of federal-provincial transfers?

Second, the federal government should strenuously resist the temptation to choose winners in vocational training. One of the most persistent of our myths rests on the notion that, somehow, governments should prepare forecasts of manpower requirements over the next 25 years or more for various types and levels of skills and training, and plan education programs and regulate enrollments accordingly. The preliminary report of the Royal Commission on the Economic Union and Development Prospects for Canada finds a disturbing echo of that ghost.

One of the surprising things about this myth is the fact that it seems to enjoy the support of groups, such as the Business Councilon National Issues, that, in other contexts, tend to dismiss with contempt the notion of an industrial policy. But how, one wonders, can governments succeed in forecasting job requirements if they are bound to fail in forecasting growth by industrial sector?

If people end up with training that makes them unemployable, the problem lies with the kind of education they receive, not with an inability to predict the future. Education has to be conceived as preparation for a world that has changed, is changing, and will continue to change. The aptitude to cope with change is one of the dimensions of the education process. Apart from that, governments can provide information and let people make their own choices.

One initiative that would not help to harmonize education policies would be for Ottawa to use its EPF cash contribution to finance its own program of student grants. To

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do so would be a cop-out and would probably result not in a selective program of student grants conceived as part of a more general thrust to enhance quality and effectiveness in higher education but in yet another universal, open-ended, income security program for tomorrow's upper-middle-class.

In principle, an ability-correlated scholarship program is feasible at any level of government, but it would be much more vulnerable to diverse pressures if operated federally. It would interact inescapably with university curricula and many dimensions of education policy. The most important stumbling block, however, consists of regional disparities in achievement levels that would produce, first, an uneven per capita distribution of scholarships across provinces and, second, pressure to gradually and differentially lower standards to eliminate those disparities. In the end, the standards themselves would have to be sacrificed. Ottawa's cash contribution is much better used as both a lever and a lubricant to encourage harmonization of provincial policies.

The third temptation is to superimpose newly devised "national standards" on the education component of EPF. Spending power cannot make such federally conceived standards binding beyond a very narrow domain that we would characterize as dealing with "entitlements" to education programs; in other words, with the "who gets what" type of question. Beyond accountability requirements, there is in Canada no experience of national standards having a substantive content that successfully goes beyond those simple -- albeit, at times, far-reaching -- rules. Should an attempt be made, it will be discredited.

The reorientation of Canada's education policies that is required in the 1980s involves action at the provincial level. The provinces themselves, however, will be far less constrained in that reorientation if they move at the same time and roughly in the same direction. The role the federal government should seek to play is to promote policy harmonization. In order to play this role, an old work horse of federalism -- the federal-provincial cost-sharing agreement -- may yet come back into favor.

Notes

1. George Psacharopoulos, "Educational Research at the World Bank," World Bank Research News 4 (Spring 1983): 8.

2. J.-P. Bélanger and C. Côté, "Le partage volontaire de l'emploi en Californie" (Quebec, May 4, 1984, mimeographed), p. 13.

3. Mirette Torkia-Lagacé, La pensée formelle chez les etudiants de collège un: objectif ou réalité? (Québec: CEGEP de Limoilou, October 1981).

4. Ibid., pp. 161-162.

Several estimates included in this **Commentary** are based on statistics that will appear in a longer work by the author entitled "Educational Policy Goals for Canada: Major Trade-Offs and Other Issues." It will be published in the proceedings of "Ottawa and the Provinces: The Distribution of Money and Power," a conference sponsored by the Ontario Economic Council.